MWD
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

BOARD ACTION

- **Board of Directors**
  Engineering and Operations Committee

June 10, 2003 Board Meeting

8-2

Subject

Appropriate $135,000 for the Jensen Tank Farm Chemical Containment System Upgrade Project as part of the Jensen Plant Improvements Program (Approp. 15371); and authorize entering into engineering services agreements in support of the Diemer, Jensen, Mills, Skinner and Weymouth Improvements Programs (Approps. 15380, 15371, 15381, 15365 and 15369)

Description

Jensen Tank Farm Chemical Containment System Upgrade ($135,000):

In January 2003, Metropolitan's Board authorized studies and investigations of the necessary upgrades to provide leak-tight containment for the caustic soda chemical tank farm at the Jensen plant. The existing tank farm walls and flooring are in need of repairs and must be upgraded to ensure full compliance with spill control and secondary containment requirements. The studies and investigations related to the remediation of these facilities have been completed, and a recommended course of action has been identified. This board action will appropriate funds and authorize the Chief Executive Officer to have all work performed in advance of award of a competitively bid construction contract for the Jensen Tank Farm Chemical Containment System Upgrade project. Final design services related to this project will be performed by an engineering services consultant. Staff will return to the Board in the future to award the construction contract and appropriate additional funds required for the construction phase of the project.

This project was evaluated and recommended by the Capital Investment Plan (CIP) Evaluation Team as part of the Jensen Plant Improvements Program, and is included in the fiscal year 2002/03 CIP budget. See **Attachment 1** for the detailed report and **Attachment 2** for the financial statement.

Engineering Services Agreements for Treatment Plant Improvements Programs:

Metropolitan established the treatment plant improvements programs to manage and implement multiple projects at the five plants to ensure infrastructure reliability and regulatory compliance. Currently, 57 projects are included in these five programs.

Following a thorough examination of existing and upcoming projects, as well as Metropolitan's in-house staffing capabilities, a staffing strategy was developed to ensure that the CIP projects are implemented in the most efficient manner possible. The resultant staffing strategy assumes that CIP projects will be undertaken utilizing a mix of Metropolitan staff and engineering consultants. Under this plan, Metropolitan staff will be strategically utilized on projects so as to best maintain core engineering design competencies, and to address projects with special needs or issues. When Metropolitan staff are unavailable for a project, engineering design consultants will be used for project-specific engineering services. These consulting services include such tasks as performing studies and investigations, preparing preliminary and final designs, and providing construction support. Utilization of supplemental engineering support is integral to Metropolitan's staffing plan for accomplishing the budgeted CIP work at Metropolitan's five treatment plants, enhancing Metropolitan's ability to meet board-adopted schedules, and minimizing impacts to higher-priority projects.

A Request for Qualifications (RFQ 578) for process and plant engineering services was issued in December 2002. Sixteen firms submitted statements of qualifications for plant engineering services, and five of these firms have been selected to support ongoing and upcoming engineering work at Metropolitan's five treatment plants.

The recommended approach to contracting with these firms provides Metropolitan with maximum flexibility in obtaining necessary engineering services tailored to each firm's expertise.

This board action authorizes the Chief Executive Officer to enter into five-year agreements with Carollo Engineers, Camp Dresser & McKee, Inc., Kennedy/Jenks Consultants, Lee & Ro, Inc., and MWH Americas, Inc., in amounts not to exceed $2 million per year each to provide plant engineering services. Under these agreements, work assignments will be issued to each firm on a task order basis as work is identified to match each firm's specific areas of expertise that were previously identified in their responses to the RFQ. Funding for the CIP work to be assigned to the various consultants is budgeted and has either previously been approved by the Board under individual capital programs, or will be recommended to the Board for approval in the upcoming months. No work is guaranteed to the consultants under these agreements.

A detailed report is included as **Attachment 1**.

Policy

Metropolitan Water District Administrative Code § 5108: Capital Project Appropriation

Metropolitan Water District Administrative Code § 8117: Professional and Technical Consultants

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

Jensen Tank Farm Chemical Containment System Upgrade

To comply with CEQA and the State CEQA Guidelines, Metropolitan as the Lead Agency prepared and processed a Mitigated Negative Declaration (MND) for the Jensen Filtration Plant Oxidation Retrofit Program (Program). The MND was distributed for a 30-day public review period that ended on June 29, 1994. Board adoption of the MND and the mitigation monitoring and reporting program (MMRP) along with Program approval occurred on August 19, 1994. Based on the Board's previous approval of that environmental documentation, the proposed actions contained in this board letter fully comply with CEQA and the State CEQA Guidelines. As such, no further environmental documentation is necessary for the Board to act on with respect to the proposed actions.

The CEQA determination is: Determine that the proposed actions relating to the Program have been previously addressed in the adopted 1994 MND and its MMRP, and that no further environmental analysis or documentation is required.

On-Call Plant Engineering Services Agreements for Treatment Plant Improvement Programs

The proposed actions in awarding agreements for on-call plant engineering services are not defined as a project under CEQA because they involve continuing administrative activities, such as personnel-related actions, general policy and procedure making (Section 15378(b)(2) of the State CEQA Guidelines). In addition, the proposed actions are not subject to CEQA because they involve other government fiscal activities which do not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment (Section 15378(b)(4) of the State CEQA Guidelines). For those future activities and projects to be developed in conjunction with these agreements and that are subject to CEQA, applicable CEQA review, evaluation, and documentation will be processed prior to Metropolitan taking future discretionary actions.

The CEQA determination is: Determine that the proposed actions for entering into on-call plant engineering services agreements are not subject to CEQA pursuant to Sections 15378(b)(2) and 15378(b)(4) of the State CEQA Guidelines.

CEQA determination for Option #2:

None required

Board Options/Fiscal Impacts

Option #1

Adopt the CEQA determination and

a. Appropriate $135,000 in budgeted CIP funds;
b. Authorize the Chief Executive Officer to have all work performed in advance of award of a competitively bid construction contract for the Jensen Tank Farm Chemical Containment System Upgrade project; and
c. Authorize the Chief Executive Officer to enter into five-year agreements with Carollo Engineers, Camp Dresser & McKee, Inc., Kennedy/Jenks Consultants, Lee & Ro, Inc., and MWH Americas, Inc., for plant engineering services, in amounts not to exceed $2 million each per year.

Fiscal Impact: $135,000 of budgeted CIP funds under the Jensen Improvements Program (Approp. 15371)

Option #2

a. Appropriate $135,000 in budgeted CIP funds;
b. Authorize the Chief Executive Officer to have all work performed in advance of award of a competitively bid construction contract for the Jensen Tank Farm Chemical Containment System Upgrade project; and
c. Do not authorize entering into consulting agreements, and instead use Metropolitan staff to perform all plant engineering services. This option would result in delays to plant improvements projects and to priority activities as staff is redirected from other work.

Fiscal Impact: $135,000 of budgeted CIP funds under the Jensen Improvements Program (Approp. 15371)

Staff Recommendation

Option #1

Roy L. Wolfe 5/13/2003
Roy L. Wolfe *Date*
Manager, Corporate Resources

Ronald R. Gastelum 5/20/2003
Ronald R. Gastelum *Date*
Chief Executive Officer

Attachment 1 – Detailed Report

Attachment 2 – Financial Statements for Jensen Filtration Plant Improvements Program

BLA #1925

Detailed Report

Jensen Tank Farm Chemical Containment System Upgrade

The Joseph Jensen Filtration Plant was placed into service in 1972 with an initial capacity of 350 million gallons per day (mgd). The plant was expanded in the early 1990s to its current capacity of 750 mgd. The plant treats State project water supplies exclusively and delivers treated water to Metropolitan's Central Pool portion of the distribution system.

The Jensen Filtration Plant Improvements Program was established to implement multiple projects necessary to ensure plant reliability. These projects address the following objectives: achieve and/or maintain compliance with federal and state drinking water quality regulations, increase the efficiency of plant operations, and enhance the safety and reliability of plant operations.

Background/Purpose

The 30,000-square foot caustic soda chemical tank farm at the Jensen plant was placed into service in 1972, following the original construction of the Jensen plant. Caustic soda is used for filtered water pH adjustment and will be used for post-ozonation pH adjustment after Jensen Oxidation Retrofit Project completion. The tank farm includes bulk storage tanks, piping, chemical feed pumps, and a chemical containment system.

The chemical containment system consists of an aboveground containment volume created by the asphalt flooring and perimeter block walls, plus an underground containment volume provided by a spill containment tank located below grade. Article 80 Hazardous Materials of the Uniform Fire Code requires the chemical containment system to be liquid-tight. Since its original construction in 1972, the asphalt flooring and block walls have suffered some cracking as a result of seismic activity and weathering. Consequently, the containment area is in need of repair to prevent potential leakage in the event of a chemical spill.

Project Description

The project consists of the following components: Remove asphalt flooring and replace with poured concrete flooring sloped to a sump; replace existing block walls with higher concrete walls bonded to the new concrete flooring; and apply chemical-resistant seal coating to both walls and floor area within the containment area to assure a liquid-tight system; expand the caustic soda rail car unloading area to provide facilities to unload four rail cars simultaneously while providing spill containment; and provide new caustic soda railcar unloading platforms.

Project Milestones

- January 2005 – Board award of construction contract
- September 2005 – Completion of construction

Cost Estimate

Attachment 2 shows the breakdown of the total estimated costs for all work in advance of award of a competitively bid construction contract. An engineering consultant will be used for final design services. The design cost is 13 percent of the estimated construction cost. Metropolitan staff will perform project management duties.

Engineering Services Agreements for Treatment Plant Improvements Programs

Background

Metropolitan created the five filtration plant improvements programs in 2001 as a means for grouping and managing projects common to each plant. The goal of the programs is to manage and implement multiple projects to ensure infrastructure reliability and regulatory compliance at each plant. The appropriations associated with the improvements programs are as follows:

- Diemer Improvements Program, Approp. 15380
- Jensen Improvements Program, Approp. 15371
- Mills Improvements Program, Approp. 15381
- Skinner Improvements Program, Approp. 15365
- Weymouth Improvements Program, Approp. 15369

Since the Improvements Programs were established in 2001, the total number of projects included in these programs has increased from 15 to 57. These projects range in size from the rehabilitation of Diemer's flocculation and sedimentation basins to numerous minor studies. Many of these projects could be delayed in the preliminary or final design phase due to insufficient Metropolitan engineering resources being available.

Purpose/Description

Following a thorough examination of existing and upcoming projects, as well as Metropolitan's in-house staffing capabilities, a staffing strategy was developed to ensure that the CIP projects are implemented in the most efficient manner possible. This staffing strategy assumes that CIP projects will be undertaken utilizing a mix of Metropolitan staff and engineering consultants. Under this plan, Metropolitan staff will be strategically utilized on projects so as to best maintain core engineering design competencies, and to address projects with special needs or issues. When Metropolitan staff are unavailable for a project, engineering design consultants will be used for project-specific engineering services.

Due to the quantity and variety of projects within Metropolitan's CIP, assignment of the work to pre-qualified firms on a task-order basis provides Metropolitan with the flexibility and speed necessary to execute the work. Utilization of supplemental professional/technical engineering support is integral to Metropolitan's staffing plan for accomplishing the budgeted CIP work at Metropolitan's five treatment plants, enhancing Metropolitan's ability to meet board-adopted schedules, and minimizing impacts to higher-priority projects.

A request for Statements of Qualifications (SOQs) to Provide On-Call Process and Plant Engineering Services (RFQ 578) was issued in December 2002. Metropolitan received 16 submittals to provide plant engineering services. Staff evaluated the SOQs, short-listed nine firms, and recommends entering into negotiations with the five highest ranked consultants: Carollo Engineers, Camp Dresser & McKee, Inc., Kennedy/Jenks Consultants, Lee & Ro, Inc., and MWH Americas, Inc.

The five selected firms correspond to the five treatment plants. While not limiting an individual firm to working on projects from a particular plant, staff believes that cost and schedule efficiencies will be realized by allowing a firm to concentrate on a specific plant, while also allowing expertise to be shared across plants where prudent.

The Board previously approved funding for the majority of the Improvements Programs projects. According to the proposed Capital Investment Plan, these five programs anticipate spending $6.7 million for professional and technical services during fiscal year 2003/04.

In addition to the Plant Improvements Programs, staff recommends using these consultants for other projects at the five filtration plants such as the following:

- Final design of the Redundant Power Conduit and Second Emergency Generator project, which will be moved from the Power Reliability and Energy Conservation Program (Approp. 15391) to the Diemer Improvements Program
- Final design of the Yorba Linda Feeder Bypass project, which will remain in Appropriation 15379

These two projects are physically located within the Diemer filtration plant. The final design scope will be combined with several adjacent Diemer Improvements Program projects.

Based on this level of consultant support required, staff recommends a 5-year agreement, with a not-to-exceed limit of $2 million per year, for each of the five selected firms. No work is guaranteed to any of the consultants under these agreements.

Financial Statement for Jensen Filtration Plant Improvements Program

A breakdown of Board Action No. 4 for Appropriation No. 15371 for final design to upgrade the Tank Farm Chemical Containment System is as follows:

	Previous Board Action No. 3 (Jan. 2003)	Current Board Action No. 4 (Jun. 2003)	New Total Appropriated Amount
Labor			
Studies and Investigations	$ 420,000	20,000	$ 440,000
Design and Specifications	875,000	0	875,000
Owner Costs (Program Management)	325,000	30,000	355,000
Construction Inspection and Support	450,000	0	450,000
Metropolitan Installation and Construction	865,000	0	865,000
Materials and Supplies	1,310,000	0	1,310,000
Incidental Expenses	70,000	5,000	75,000
Professional/Technical Services	100,000	60,000	160,000
Equipment Use	80,000	0	80,000
Contracts	3,100,000	0	3,100,000
Remaining Budget	1,130,000	20,000	1,150,000
Total	**$ 8,725,000**	**$ 135,000**	**$ 8,860,000**

Funding Request

Program Name:	Jensen Filtration Plant – Improvements Program		
Source of Funds:	Construction Funds (General Obligation, Revenue Bonds, Pay-As-You-Go Fund)		
Appropriation No.:	15371	**Board Action No.:**	4
Requested Amount:	$ 135,000	**Capital Program No.:**	15371-I
Total Appropriated Amount:	$ 8,860,000	**Capital Program Page No.:**	E-44
Total Program Estimate:	$ 14,196,000	**Program Goal:**	I – Infrastructure Reliability